

Tennessee Pollution Prevention Partnership Success Story



DENSO Manufacturing Tennessee, Inc.
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Partner Reduces Electricity Usage

The Member

DENSO Manufacturing Tennessee, Inc. and DENSO Manufacturing Athens Tennessee, Inc., are part of DENSO Corporation's global network of 74 subsidiaries in 29 nations and the fourth largest producer of advanced technology, components and systems for all major automakers. The Tennessee facilities employ more than 2,900 associates at two locations, Maryville and Athens. Automotive components and systems produced at the Tennessee locations include the following:

Maryville: Alternators, starters, instrument clusters and electronic components

Athens: Oxygen sensors, fuel injectors, airflow meters, ignition coils, monolithic carriers and spark plugs

The Story – Compressed Air Usage

DENSO uses electrical air compressors to supply compressed air to manufacturing equipment. DENSO established a program to identify and repair compressed air leaks on equipment. DENSO also reduced the pneumatic set points of equipment to reduce the amount of compressed air required.

For example, the air compressors supplied 112 pounds per square inch (psi) of compressed air to the production equipment at the electronics components plant. Through engineering evaluations and testing, the electronics plant pneumatic set point was lowered to 90 psi. The pneumatic set points were reviewed and adjusted as allowed at each DENSO manufacturing facility. The overall electricity consumption by DENSO Manufacturing Tennessee Divisions was reduced by reducing the overall amount of compressed air lost to leaks or used in equipment.

The Success

The compressed air reductions achieved through the air leak identification and repair program and pneumatic set point reductions allowed DENSO to reduce the number of air compressors used and the operation hours of the compressors still in operation. These improvements reduced DENSO electricity usage by approximately 1.4 million kilowatt hours per year.

The Pollution Prevented

This project prevented the use of 1.4 million kilowatt hours of electricity per year.

TENNESSEE POLLUTION PREVENTION PARTNERSHIP
1-800-734-3619 <http://www.state.tn.us/environment/dca/tp3.htm>

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